

**DEPARTMENT OF TOXIC SUBSTANCES CONTROL
BIENNIAL REPORT ON THE
SCHOOL PROPERTY EVALUATION AND CLEANUP DIVISION ACTIVITY JANUARY
2000 THROUGH DECEMBER 2001**

Prepared Pursuant to Education Code, Sections 17070. 50, 17072.13, 17072.18, 17210, 17210.1, 17213.1, 17213.2, 17213.3, 17268, as amended in 2000 and 2001.

This biennial report describes activities relating to environmental assessments of school sites that were performed by the Department of Toxic Substances Control (DTSC) from January 2000 through December 2001. These activities were implemented in response to a legislative mandate to identify environmental contamination and oversee remediation, prior to construction of new schools or expansion of existing schools funded by state bond monies. This report lists additional accomplishments illustrating the effectiveness of DTSC's School Property Evaluation and Cleanup Division (School Division). The report also includes three examples of environmental contamination typically found at prospective school properties: a) contamination from former industrial uses; b) contamination from former agricultural uses; and c) contamination found at existing schools. Listings of all school districts and sites for which DTSC has conducted oversight of environmental assessments during the past two years are attached as Appendix A (in order of Senate District) and Appendix B (in order of Assembly district).

1) New Laws Requiring Environmental Assessments for Schools

Between 1995 and 1998, DTSC staff identified several existing schools that were located on or adjacent to contaminated properties. The school properties were themselves contaminated by hazardous substances, including hexavalent chromium, volatile organic compounds, and lead. Local communities were concerned about possible health impacts from the schools' contamination to students and teachers. DTSC identified significant health and safety hazards at several other school sites, including the controversial Belmont Learning Center, a new school being constructed over a Los Angeles oil field where there are elevated concentrations of potentially explosive methane and toxic hydrogen sulfide gases.

Legislative hearings were conducted to investigate environmental due diligence and site acquisition practices of school districts. These hearings were held by the Joint Legislative Audit Committee (chaired by Assembly Member Wildman), Senate Natural Resources Committee (chaired by Senator Hayden), and the Assembly Committee on Environmental Safety and Toxic Materials (chaired by Assembly Member Jackson). Each committee prepared reports documenting inadequacies in state requirements involving school siting. Consequently, on January 1, 2000, Senate Bill (SB) 162, Escutia, and Assembly Bill (AB) 387, Wildman, took effect, detailing the environmental review process now required of school districts wishing to purchase, build, or expand school properties with matching state funds. The legislation identified the Department of Toxic Substances Control (DTSC) as the lead environmental agency, and required DTSC to oversee environmental assessments of potential new

or expanding school sites. Assembly Bills 2644 and 972, written by Assemblyman Calderon, were passed in September 2000 and October 2001, respectively, further refining the environmental review process for schools.

2) School Property Evaluation and Cleanup Division; “School Division”

Recognizing the statewide need for environmentally safe school sites, DTSC designated school projects as a top priority, and established a dedicated Schools Division in May 2000. Since then, the Schools Division has expanded to three statewide offices, with multidisciplinary staff, including scientists, engineers, toxicologists, geologists, industrial hygienists, public participation specialists, and administrative and supervisory staff, to oversee environmental assessments of school sites.

3) School Division Accomplishments

During the past two years, DTSC’s Schools Division has successfully facilitated statewide efforts to safely construct new schools and expand existing schools, by completing oversight of environmental assessments of properties to identify hazardous materials that could pose a threat to children and/or the environment. The Schools Division has set the national standard for school site environmental reviews by reviewing environmental assessments and overseeing additional cleanups at over 700 schools in 278 school districts throughout the state. Environmental assessment determinations were issued for 740 projects; additional cleanup activities were completed at 12 school sites, with approximately 56 additional remedial or removal actions now in progress.

4) Three-Step Environmental Assessment Process for School Sites

A brief description of the environmental review process for new and expanding schools is provided below:

Step 1: Phase I Environmental Site Assessment. In accordance with the California Education Code, school districts contract with qualified environmental assessors to prepare Phase I Environmental Site Assessments. The school district’s contractor reviews records to determine if there is any potential for exposure to hazardous materials, including naturally occurring hazardous materials, such as methane and asbestos. School districts submit these assessments with an advance payment of \$1500 to the Department of Education (CDE); CDE forwards them to DTSC for review, comment, and approval, to be completed within 30 days. Approximately 44% of Phase I Assessments for school sites have received “No Action” determinations where no potential contamination was identified. This “No Action” determination ends the environmental review process.

Step 2: Preliminary Endangerment Assessments (PEAs). In accordance with the California Education Code, if Phase I assessments reveal potential contamination, school districts must prepare a PEA, which includes site sampling and risk assessment conducted according to DTSC guidelines. Additionally, school districts must contract separately with DTSC by entering

into an Environmental Oversight Agreement to compensate DTSC for oversight costs for each school site. School districts meet with DTSC to develop a work plan before sampling; DTSC staff may also oversee field sampling. Districts submit PEAs for DTSC review, comment, and approval within 60 days of receipt.

DTSC reviews the environmental evaluations of school properties to identify the presence of hazardous materials at the site, which may include chemicals remaining from previous land uses, such as pesticides that may be found at former agricultural properties. If such chemicals are found through sampling, DTSC uses a “Risk Assessment” approach to determine if there may be a possible human health threat or environmental threat from exposure to toxic chemicals or hazardous materials at the potential school. To evaluate whether or not a school site is safe, DTSC must determine whether or not harmful chemicals or hazardous materials are present at concentrations high enough to cause health problems to people or damage to the environment.

Approximately 80% of school site PEAs have received “No Further Action” determinations, where there are not significant risks despite limited contamination. A “No Further Action” determination on a PEA ends the environmental review process.

Step 3: Removal Action/Remedial Action. In accordance with the California Education Code, if the PEA identifies significant contamination and potential health risks, school districts may elect to withdraw the property from further consideration. If school districts decide to pursue the potential site, further investigation and/or cleanup under DTSC oversight is conducted pursuant to Health and Safety Code, Chapter 6.8 requirements for hazardous substances cleanup. Depending on site-specific conditions, the typical steps for cleaning up a potential school site include preparation of a Supplemental Investigation and a Removal Action Work Plan, or Remedial Action Plan. Upon completion of cleanup, DTSC certifies that “No Further Action” is required. A “No Further Action” determination following completion of cleanup ends the environmental review process.

5) Statutory Time Frames

The new state law specifically addresses environmental review timeframes, to ensure that the review process does not cause unreasonable delay in the site acquisition and construction process for school sites. State law requires DTSC to review and comment on Phase I Assessments within thirty days of receipt. DTSC is required to review draft PEAs within 60 days of receipt. For PEAs, school districts are required to make PEA reports available for public review and comment prior to DTSC’s final determination. DTSC is required to approve or disapprove PEA reports within thirty days of the close of the public comment period or within thirty days of the school district’s approval of the environmental impact report for the school site.

Environmental assessments and cleanups at most school sites have proceeded

expeditiously, especially where contractors have followed DTSC guidance materials and protocols. Over the past two years, DTSC has missed the statutory review deadlines for only six school projects out of 740 projects completed. The longest DTSC delay was twelve (12) days past the 60-day deadline for review of a PEA report. In response to the pressures faced by school districts, meeting and, where possible, exceeding deadlines is a high priority for DTSC.

6) Pilot Project (Federal Grant Funding)

Some school districts lack the financial resources to pay for environmental contractors and for DTSC oversight costs. DTSC requested federal grant funding (known as the “Core Grant”) from the United States Environmental Protection Agency to conduct a pilot project last year. This pilot project was conducted both to assist school districts with financial hardships, and to quantify reasonable environmental contractor costs and timeframes for PEA completion.

The pilot project assisted two school districts, the Los Angeles County Office of Education and the Hawthorne School District, by employing an environmental contractor to complete two PEAs under DTSC oversight. One of the PEAs was completed within six weeks; the second, more complex PEA took approximately four months to complete. DTSC’s contractor costs were \$39,000 and \$75,000 for sampling and preparation of the PEA reports, while DTSC staff oversight costs were \$12,240 and \$18,512, respectively. DTSC is currently screening letters of interest from ten additional school districts wishing to participate in a similar project during this fiscal year. Selection criteria will include: financial hardship, former industrial or commercial land use, size of projects, potential costs, project complexity, and time constraints.

7) Examples of Environmental Contamination Identified at School Sites

A) Contamination Found at Former Industrial Properties:

Urban school districts often need to use former industrial property for new school sites. However, these properties may have hazardous materials remaining from landfills, storage tanks, transformers, dry cleaners, chemical production, oilfields, imported fill, etc. School districts must carefully test such properties to evaluate residual contamination to soil and groundwater, as well as possible soil gases that could affect human health or the environment. In addition, some properties may have undergone a partial cleanup for industrial purposes, but may remain unsuitable for school use.

DTSC is currently working with the Los Angeles Unified School District in oversight of a Removal Action Workplan at a proposed forty acre site in South Gate to house three new schools: Southeast High School #2 for 3,465 students, a Continuation School for 120 students, and a Middle School for 1,873 students. Former land uses on these properties include a General Motors production plant, a furniture manufacturer, and an automotive junkyard. Before purchase of the property, the school district conducted an environmental assessment and investigation that identified elevated levels of

arsenic and lead in limited areas. DTSC recently approved the Removal Action Work Plan for excavation and offsite disposal of the contaminated soils.

In addition to the environmental problems, this community has experienced severe student overcrowding. The predominately Latino community has expressed concerns about environmental justice issues. They have been especially concerned that the new schools, to be constructed in the former industrial areas, will be safe for children, and that the proposed school property should be cleaned up and the schools built on an expedited schedule. DTSC staff has met with members of the community in public meetings and task force meetings, to discuss the findings of the environmental investigation and plans to clean up the site. At these meetings, community concerns regarding exposures to chemicals and related health issues for the students and teachers were also addressed by DTSC. These meetings have reassured the community and helped to reduce the general anxiety over selection of these sites, thereby also increasing community support for the proposed cleanup. Cleanup is scheduled to be completed by June 2002, with construction to begin immediately following cleanup.

B) Contamination Found at Former Agricultural Properties:

School districts often propose new schools on land formerly used for agricultural purposes that may contain pesticides. Some of the former agricultural sites have required soil remediation due to pesticide residues of organochlorine pesticides, with elevated levels of toxaphene and arsenic sometimes requiring remediation. Former dairy farms often contain collection ponds for animal wastes, where high volumes of methane gas may be produced, creating potentially explosive conditions. DTSC has required several school properties to develop methane collection systems to vent and monitor the gases.

Ernesto Galarza Elementary School in San Jose is an example of a former agricultural site contaminated by pesticides. DTSC provided oversight of a PEA and Removal Action Work Plan, while allowing school construction to continue in the unaffected areas. In July 2001, DTSC approved the removal action with a "No Further Action" determination. The new 37-classroom school opened on August 29, 2001, providing 750 seats for elementary school students.

C) Contamination Found at Existing Schools

Current law exempts existing schools that are not expanding or acquiring property with state funds from the new environmental review requirements. However, some school districts have requested DTSC's assistance to address environmental contamination for schools built over or near landfills or oilfields, or next to hazardous waste sites where contamination has migrated to the schools.

Some schools where properties had not been otherwise contaminated unknowingly brought in contaminated fill dirt across their sites, requiring remediation.

The Burbank Elementary School in San Bernardino was the first existing school to request DTSC’s oversight of a Removal Action Workplan and removal action. In August 2000, DTSC responded to a referral from the San Bernardino County Fire Department concerning probable pesticide contamination from an adjacent chemical company. DTSC met with the school district, the fire department, and the chemical company. Under DTSC oversight, the adjacent chemical company conducted an expedited PEA to investigate the presence of heavy metals and pesticides at the school site. Within six weeks, DTSC issued a determination that a removal action was required for pesticides, including chlordane, dieldrin, and DDT, which had spread to the adjacent school playground. DTSC held public meetings with parents, teachers, community members, and public officials. At DTSC’s recommendation and the parents’ request, the school closed down for seven weeks while the adjacent chemical company removed and disposed (with DTSC oversight) of 8,800 tons of pesticide-contaminated soil; the area was backfilled with clean soil. The school reopened on October 30, 2000. In addition, DTSC has conducted an investigation of the adjacent chemical company property to ensure that no other contamination will impact the school or the community.

8) School Program Costs for Contractors and DTSC Oversight

Average charges by private contractors per activity are listed below, based upon limited information regarding contractor costs; the ranges reflect differing levels of site conditions, complexity, and volume of wastes removed. DTSC’s average oversight costs for school sites are also listed below; these costs have generally been less than those seen for similar activities at non-school sites. Costs are noted as follows:

	<u>Average Contractors’ Costs</u>	<u>Average DTSC Oversight Costs</u>
Phase Is =	\$ 4,000 to 7,000	\$ 755.
PEAs =	\$35,000 to 75,000	\$11,193.
Removal Action Work Plans =	\$50,000 to 250,000	\$14,716.

Approximately 90% of school Phase Is were reviewed by DTSC for less than the projected DTSC oversight cost of \$1500; approximately 80% of school PEAs were reviewed by DTSC for less than the projected DTSC oversight cost of \$15,000. DTSC has issued refunds to all school districts that submitted advance payments exceeding the final costs of oversight.

9) Coordination and Communication

To facilitate implementation of DTSC’s environmental reviews of school sites, School Division managers have participated in monthly coordination meetings with representatives from CDE and the Coalition for Adequate School Housing (CASH).

CASH is an organization representing 1,200 school districts, architects, attorneys, construction managers, consultant and facility planners, contractors, developers, and financial institutions. Topics of discussion have included the development of environmental sampling guidance and protocols, the timeframes and costs for environmental reviews, and other community concerns. These outreach efforts have resulted in improved coordination, cooperation, and communication between school districts, CDE, and DTSC, and have provided a forum for school districts to raise concerns to DTSC.

10) Fact Sheets, Advisories, and Guidance Documents

In response to questions most frequently asked by school districts and their consultants, DTSC has developed 13 technical advisories and fact sheets to clarify policy issues and decision-making for school districts and their consultants. DTSC solicits continuous input from program stakeholders concerning other technical areas where additional clarity is needed to facilitate timely environmental reviews. Many of the documents listed below were reviewed by school organizations, environmental organizations, and several environmental consulting firms before they were finalized and placed on DTSC's web site.

- 1) *Environmental Oversight Agreement Advisory*
- 2) *Interim Guidance for Sampling Agricultural Soils, June 28, 2000*
- 3) *Interim Guidance for Evaluating Lead-Based Paint and Asbestos-Containing Materials at Proposed School Sites, July 23, 2001*
- 4) *Guidance for Integration of School Sites Requirements and Site Mitigation Program Activities at Military Facilities, October 23, 2001*
- 5) *Phase I Environmental Site Assessment Advisory: School Property Evaluations, September 5, 2001*
- 6) *Project Manager Advisory: PCBs and Transformers, September 2001*
- 7) *Information Advisory: Clean Imported Fill Material, October 2001*
- 8) *Project Manager Advisory: Hydrogen Sulfide, October 2001*
- 9) *Project Manager Advisory: Methane Gas, October 2001*
- 10) *Project Manager Advisory: Septic Systems, October 2001*
- 11) *Fact Sheet #1: New Environmental Requirements for Proposed School Sites, Assembly Bill 387 and Senate Bill 162, June 2000*
- 12) *Fact Sheet #2: Update on Environmental Requirements for Proposed School Sites/Construction Projects, AB 2644 Summary, February 2001*
- 13) *Fact Sheet #3: Update on School Site Environmental Review Process, AB 972 Summary, November 2001*

SUMMARY

DTSC recognizes that the shortage of schools and classrooms can result in overcrowding, compromising the quality of public education for school children. At the same time, DTSC has a mandate to ensure that new school sites are environmentally safe for students and teachers, so that their health and safety is not impacted by toxic chemicals or hazardous materials. By working closely with all stakeholders, DTSC can identify ways to facilitate prompt and effective decision-making, such as development of needed guidance documents and protocols to simplify and clarify DTSC requirements. Given the critical

need for new and expanded schools, DTSC will continue to seek feedback from school districts and others about the effectiveness and efficiency of the new environmental review process for California schools. DTSC also encourages public involvement in the environmental review process through participation in public meetings with parents, teachers, neighboring communities, legislators, and local officials.

Since the enactment of new laws in January 2000, DTSC has actively worked with over 280 school districts and their consultants, providing guidance on school site evaluations, risk assessments, and the environmental review and cleanup process. Over the past two years, DTSC has also completed a record number of 740 school site assessments and 12 cleanup actions. As long as there is a shortage of schools and new, environmentally safe classrooms are needed, DTSC looks forward to the Schools Program continuing to be a top management priority.

4/18/02